Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No. 13751-0035US1	Application No. 10/553,710	
Information Disclosure Statement by Applicant		Applicant Dinah Wen-Yee Sah et al.		
(Use several she	eets if necessary)	Filing Date February 27, 2007	Group Art Unit 1647	

U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	1	2002/0002269	01/03/2002	Milbrandt et al.			
	2	2002/0055467	05/09/2002	Johansen et al.			
	3	2002/0114780	08/22/2002	Bankiewicz et al.			
	4	2003/0078373	4/24/2003	Fersht et al.			
	5	2003/0166537	09/04/2003	Hanke			
	6	2003/0186267	10/02/2003	Feder et al.			
	7	2004/0028613	02/12/2004	Quay			
	8	2004/0077543	04/22/2004	Sah et al.			
	9	2004/0142418	07/22/2004	Sah et al.			
	10	2004/0230043	11/18/2004	Johansen et al.			
	11	2004/0242472	12/02/2004	Shelton et al.			
	12	2004/0265972	12/30/2004	Weintraub et al.			
	13	2005/0069520	03/31/2005	Shi et al.			
	14	2005/0089960	04/28/2005	Wahlberg et al.			
	15	2005/0118157	06/02/2005	McMahon et al.			
	16	2005/0142098	06/30/2005	Sah et al.			
	17	2005/0158824	7/21/2005	Pedersen et al.			
	18	2005/0180957	08/18/2005	Scharp et al.			
	19	2005/0181991	08/18/2005	Shelton et al.			
	20	2005/0233359	10/20/2005	Masure et al.			
	21	2006/0009625	01/12/2006	Bedows et al.			
	22	2006/0014288	01/19/2006	Kim et al.			
	23	2006/0122135	06/08/2006	Geerts et al.			
	24	2007/0238650	10/11/2007	Sah et al.			
	25	2007/0254824	11/1/2007	Bankiewicz			
	26	2008/0039385	02/14/2008	Rossomando et al.			
	27	2008/0227703	9/18/2008	Johansen et al.			

Examiner Signature /Daniel Gamett/ (03/13/2011)	Date Considered
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(Use several she	eets if necessary)	Filing Date	Group Art Unit
(37 CFR 81 98(b))		February 27, 2007	1647

U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	28	2008/0249287	10/09/2008	Rossomando et al.			
	29	2008/0260702	10/23/2008	Jorgensen			
	30	2008/0306212	12/11/2008	Sah et al.			
	31	2009/0221495	09/03/2009	Rossomando et al.			
	32	2009/0258831	10/15/2009	Sah			
	33	2010/0056440	03/04/2010	Rossomando et al.			
	34	2010/0234293	9/16/2010	Johansen et al.			
	35	2010/0261654	10/14/2010	Rossomando et al.			
	36	2010/0292142	11/18/2010	Sah et al.			
	37	4,352,883	10/05/1982	Lim			
	38	4,353,888	10/12/1982	Sefton			
	39	4,407,957	10/04/1983	Lim			
	40	4,883,666	11/28/1989	Sabel et al.			
	41	4,968,733	11/06/1990	Muller et al.			
	42	4,976,859	12/11/1990	Wechs			
	43	5,084,350	01/28/1992	Chang et al.			
	44	5,158,881	10/27/1992	Aebischer et al.			
	45	5,194,596	03/16/1993	Tischer et al.			
	46	5,284,761	02/08/1994	Aebischer et al.			
	47	5,350,836	09/27/1994	Kopchick et al.			
	48	5,414,135	05/09/1995	Snow et al.			
	49	5,445,934	08/29/1995	Fodor et al.			
	50	5,496,804	03/05/1996	Reed et al.			
	51	5,525,464	06/11/1996	Drmanac et al.			
	52	5,618,531	04/08/1997	Cherksey			
	53	5,641,749	06/24/1997	Yan et al.			
	54	5,650,494	07/22/1997	Cerletti et al.			

Examiner Signature	Date Considered
/Daniel Gamett/ (03/13/2011)	
EXAMINED: Initials situation considered. Draw line through situation if no	t in conformance and not considered. Include conv. of this form with

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(Use several she	eets if necessary)	Filing Date	Group Art Unit
(37 CFR 81 98(b))		February 27, 2007	1647

	U.S. Patent Documents						
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	55	5,654,007	08/05/1997	Johnson et al.			
	56	5,733,729	03/31/1998	Lipshutz et al.			
	57	5,754,524	05/19/1998	Wark			
	58	5,770,577	06/23/1998	Fandl et al.			
	59	5,775,320	07/07/1998	Patton et al.			
	60	5,780,014	07/14/1998	Eljamal et al.			
	61	5,780,019	07/14/1998	Klier et al.			
	62	5,785,049	07/28/1998	Smith et al.			
	63	5,795,716	08/18/1998	Chee et al.			
	64	5,798,113	08/25/1998	Dionne et al.			
	65	5,800,992	09/01/1998	Fodor et al.			
	66	5,814,607	09/29/1998	Patton			
	67	5,834,029	10/10/1998	Bellamkonda et al.			
	68	5,846,935	12/08/1998	Panayotatos			
	69	5,916,555	06/29/1999	Lee et al.			
	70	5,939,524	08/17/1999	Bowditch et al.			
	71	6,063,757	05/16/2000	Urso			
	72	6,083,725	07/04/2000	Selden et al.			
	73	6,084,076	7/4/2000	Ejima et al.			
	74	6,284,540	09/04/2001	Milbrandt et al.			
	75	6,299,895	10/09/2001	Hammang et al.			
	76	6,361,771	03/26/2002	Tao et al.			
	77	6,593,133	07/15/2003	Johansen et al.			
	78	6,677,135	01/13/2004	Sanicola-Nadel et al.			
	79	6,723,344	4/20/2004	Sakiyama-Elbert et al.			
	80	6,734,284	05/11/2004	Johansen et al.			
	81	7,067,473	06/27/2006	Masure			

Examiner Signature	Date Considered
/Daniel Gamett/ (03/13/2011)	
EVAMINED: Initials citation considered. Draw line through citation if no	t in conformance and not considered. Include copy of this form with

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(Use several she	eets if necessary)	Filing Date	Group Art Unit
(37 CFR 81 98(b))		February 27, 2007	1647

	U.S. Patent Documents						
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	82	7,115,257	10/03/2006	Tao et al.			
	83	7,276,580	10/02/2007	Sah et al.			
	84	7,358,228	04/15/2008	Sah et al.			
	85	7,442,370	10/28/2008	Sah et al.			
	86	7,598,059	10/06/2009	Pederson et al.			
	87	7,601,518	10/13/2009	Wahlberg et al.			
	88	7,655,463	02/02/2010	Sah et al.			

	Foreig	n Patent Docu	ıments or P	ublished Foreign	Patent A	Application	ns	
Examiner	Desig.	Document	Publication	Country or			Translat	
Initial	ID	Number	Date	Patent Office	Class	Subclass	Yes	No
	89	EP 1 373 503	11/14/2007	Europe				
	90	EP 1 930 439	06/11/2008	Europe				
	91	JP11-310600	11/09/1999	Japan			Abstract only	
	92	JP2002-534957	10/22/2002	Japan			Abstract only	
	93	JP2003-310258	11/5/2003	Japan			Abstract only	
	94	RU2225728	08/26/1999	Russia			English is WO 99/42486	
	95	WO 92/19195	11/12/1992	WIPO				
	96	WO 93/06116	04/01/1993	WIPO				
	97	WO 95/05452	02/23/1995	WIPO				
	98	WO 97/08196	03/06/1997	WIPO				
	99	WO 97/11964	04/03/1997	WIPO				
	100	WO 97/19693	6/5/1997	WIPO				
	101	WO 98/32869	07/30/1998	WIPO				
	102	WO 99/03887	01/28/1999	WIPO				
	103	WO 99/13090	03/18/1999	WIPO				
	104	WO 99/42486	08/26/1999	WIPO				

Examiner Signature /Daniel Gamett/ (03/13/2011)	Date Considered
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EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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	losure Statement plicant	Applicant Dinah Wen-Yee Sah et al.		
(Use several sheets if necessary)		Filing Date	Group Art Unit	
(37 CFR 81 98(b))		February 27, 2007	1647	

Foreign Patent Documents or Published Foreign Patent Applications								
Examiner	Desig.	Document	Publication	Country or				slation
Initial	ID	Number	Date	Patent Office	Class	Subclass	Yes	No
	105	WO 99/43813	09/02/1999	WIPO				
	106	WO 99/49039	09/30/1999	WIPO				
	107	WO 00/01815	01/13/2000	WIPO				
	108	WO 00/04050	01/27/2000	WIPO				
	109	WO 00/15665	3/23/2000	WIPO				
	110	WO 00/18799	04/06/2000	WIPO				
	111	WO 00/34475	06/15/2000	WIPO				
	112	WO 00/73348	12/07/2000	WIPO				
	113	WO 01/47946	07/05/2001	WIPO				
	114	WO 01/66164	09/13/2001	WIPO				
	115	WO 01/76639	10/18/2001	WIPO				
	116	WO 01/87925	11/22/2001	WIPO				
	117	WO 02/46430	06/13/2002	WIPO				
	118	WO 02/51433	07/04/2002	WIPO				
	119	WO 02/60929	08/08/2002	WIPO				
	120	WO 02/72826	09/19/2002	WIPO				
	121	WO 02/78730	10/10/2002	WIPO				
	122	WO 03/44055	5/30/2003	WIPO				
	123	WO 04/02763	01/08/2004	WIPO				
	124	WO 04/69176	08/19/2004	WIPO				
	125	WO 04/94592	11/04/2004	WIPO				
	126	WO 04/108760	12/16/2004	WIPO				
	127	WO 05/039643	05/06/2005	WIPO				
	128	WO 06/023781	03/02/2006	WIPO				
	129	WO 06/023782	03/02/2006	WIPO				
	130	WO 07/042040	4/19/2007	WIPO				
	131	WO 07/100898	09/07/2007	WIPO				

Examiner Signature	Date Considered
/Daniel Gamett/ (03/13/2011)	
EVAMINED: Initials situation considered. Draw line through situation if no	t in conformance and not considered. Include convert this form with

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	Foreign Patent Documents or Published Foreign Patent Applications							
Examiner	Desig.	Document	Publication	Country or			Translat	
Initial	ID	Number	Date	Patent Office	Class	Subclass	Yes	No
	132	WO 07/103182	09/13/2007	WIPO				
	133	WO 08/137574	11/13/2008	WIPO				
	134	WO 09/020964	02/12/2009	WIPO				

	Other Documents (include Author, Title, Date, and Place of Publication)				
Examiner	Desig.				
Initial	ID	Document			
	135	ABRAMS et al., "Emerging strategies to promote improved functional outcome after peripheral nerve injury," Restor. Neurol. Neurosci., 23(5-6):367-82 (2005)			
	136	AEBISCHER et al, "Recombinant proteins for neurodegenerative diseases: the delivery issue," Trends in Neuroscience, Elsevier, Amsterdam, NL 24(9):533-540 (2001)			
	137	AEBISCHER et al., "Intrathecal delivery of CNTF using encapsulated genetically modified xenogeneic cells in amyotrophic lateral sclerosis patients," Nature Medicine, 2:696-699 (1996)			
	138	AIRAKSINEN et al., GDNF family neurotrophic factor signaling: four masters, one servant," Mol. Cell Neurosci., 13:313-325 (1999)			
	139	AIRAKSINEN et al., "The GDNF family: signalling, biological functions and therapeutic value," Nature Reviews, Neuroscience 3:383-394 (May 2002)			
	140	ALFANO et al., "The major determinant of the heparin binding of glial cell-line-derived neurotrophic factor is near the N-terminus and is dispensable for receptor binding," Biochem. J., 404(1):131-40 (2007)			
	141	ALGVERE et al., "Transplantation of RPE in age-related macular degeneration: observations in disciform lesions and dry RPE atrophy," Graefe's Arch. Clin. Exp. Ophthalmol., 235:149-158 (1997)			
	142	ANDERSON, "Human gene therapy," Nature, 392:25-30 (1998)			
	143	ANDRES et al., "Multiple effects of artemin on sympathetic neurone generation, survival and growth," Development 128:3685-3695 (2001)			
	144	ANONYMOUS, "Anti-human Artemin Antibody," R&D Systems Product Data Sheets (December 27, 2006), [online] XP002505114. Retrieved from the Internet:			
	145	http://www.rndsystems.com/pdf/AF2589.pdf [retrieved on November 21, 2008].  ANONYMOUS, "Monoclonal Anti-human Artemin Antibody," R&D Systems Product Data Sheets (March 23, 2006), [online] XP002505115. Retrieved from the Internet: http://www.rndsystems.com/pdf/MAB2589.pdf [retrieved on November 21, 2008].			
	146	ATSCHUL et al., "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs," Nucl. Acids Res., 25:3389-3402 (1997)			
	147	BALOH et al. "Artemin, a novel member of the GDNF ligand family, supports peripheral and central neurons and signals through the GFRalpha3-RET receptor complex," Neuron, 21(6):1291-1302 (1998)			
	148	BALOH et al., "Functional mapping of receptor specificity domains of glial cell line-derived neurothropic factor (GDNF) family ligands and production of GFR alpha 1 RET-specific agonists," J. of Biological Chemistry, 275(5):3412-3420 (2000)			

Examiner Signature	Date Considered
/Daniel Gamett/ (03/13/2011)	
EXAMINED: Initials citation considered. Draw line through citation if no	t in conformance and not considered. Include conv of this form with

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No. 13751-0035US1	Application No. 10/553,710	
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(	Other Documents (include Author, Title, Date, and Place of Publication)				
Examiner Initial	Desig. ID	Document			
	149	BAUDET et al., "Positive and negative interactions of GDNF, NTN and ART in developing sensory neuron subpopulations, and their collaboration with neurotrophins," Development, 127:4335-4344 (2000)			
	150	BAUSKIN et al., "The propertide of macrophage inhibitory cytokine (MIC-1), a TGF-β superfamily member, acts as a quality control determinant for correctly folded MIC-1," The EMBO Journal, 19(10):2212-2220 (2000)			
	151	BENDTSEN et al., "Improved prediction of signal peptides – SignalP 3.0," J. Mol. Biol., 340(4):783-795 (2004)			
	152	BENNETT et al., "Artemin has potent neurotrophic actions on injured C-fibres," J. Peripher. Nerv. Syst., 11(4):330-45 (2006)			
	153	BENNETT et al., "A distinct subgroup of small DRG cells express GDNF receptor components and GDNF is protective for these neurons after nerve injury," J. Neurosci. 18(8):3059-3072 (April 15, 1998)			
	154	BENNETT, G., "An animal model of neuropathic pain: A review," Muscle & Nerve 16:1040-1048 (1993)			
	155	BONDE et al., "GDNF and neublastin protect against NMDA-induced excitotoxicity in hipocampal slice cultures," Neuroreport., 11:4069-4073 (2000)			
	156	BOOTCOV et al., "MIC-1, a novel macrophage inhibitory cytokine, is a divergent member of the TGF-β superfamily," Pro. Natl. Acad. Sci. U.S.A., 94:11514-11519 (1997)			
	157	BORK, "Go hunting in sequence databases but watch out of the traps," Trends in Genetics, 12:425-427 (1996)			
	158	BORK, "Powers and Pitfalls in Sequence analysis: the 70% Hurdle," Genome Research, 10:398-400 (2000)			
	159	BORODOVSKY et al., "Detection of new genes in a bacterial genome using Markov models for three gene classes," Nucl. Acids Res., 23:3554-3562 (1995)			
	160	BOUCHER et al "Artemin prevents injury-induced changes in small sensory neurons," Abstracts of the Society for Neuroscience, Society for Neuroscience, Washington D.C. 26(1/2):63305 (2000)			
	161	BRENNER, "Errors in genome annotation," Trends in Genetics, 15:132-133 (1999)			
	162	BURGESS et al., "Possible dissociation of the heparin-binding and mitogenic activities of heparin-binding (acidic fibroblast) growth factor-1 from its receptor-binding activities by site-directed mutagenesis of a single lysine residue," J. of Cell Biology, 111:2129-2138 (1990)			
	163	CALLISTER et al., Soc. for Neuroscience Abstracts 27(1):36.11 (2001)			
	164	CAMPBELL et al., "Mechanisms of Neuropathic Pain," Neuron, 52:77-92 (2006)			
	165	CARMILLO et al., "Glial Cell Line-Derived Neurotrophic Factor (GDNF) Receptor α-1(GFRα1) Is Highly Selective for GDNF versus Artemin," Biochemistry, 44:2545-2554 (2005)			
	166	CEYHAN et al., "The neurotrophic factor artemin promotes pancreatic cancer invasion," Ann. Surg., 244:274-81 (2006)			
	167	CEYHAN et al., "The neurotrophic factor artemin influences the extent of neural damage and growth in chronic pancreatitis," Gut., 56(4):534-44 (2007)			
	168	DAMON et al., "Vascular-derived artemin: a determinant of vascular sympathetic innervation?," Am. J. Physiol. Heart Circ. Physiol., 293:H266-H273 (2007)			

Examiner Signature	Date Considered			
/Daniel Gamett/ (03/13/2011)				
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include conv of this form with				

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No. 13751-0035US1	Application No. 10/553,710	
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(Use several sheets if necessary) (37 CFR §1.98(b))		Filing Date February 27, 2007	Group Art Unit 1647	

Other Documents (include Author, Title, Date, and Place of Publication)			
Examiner Initial	Desig. ID	Document	
	169	DAOPIN et al., "Crystal structure of TGF-J2 refined at 1.8 A resolution," Proteins, 17:176-192 (1993)	
	170	DELGADO et al., "The uses and properties of PEG-Linked proteins," Critical Reviews in Therapeutic Drug Carrier Systems," 9(3/4):249-304 (1992)	
	171	DOERKS et al., "Protein annotation: detective work for function prediction," Trends in Genetics, 14:248-250 (1998)	
	172	DURING et al., "Towards gene therapy for the central nervous system," Mol. Med., 11:485-493 (1998)	
	173	EIGENBROT et al., "X-ray structure of glial cell-derived neurotrophic factor at 1 9 A resolution and implications for receptor binding," Nat. Struct. Biol., 4:435-438 (1997)	
	174	ENOMOTO et al., "RET signaling is essential for migration, axonal growth and axon guidance of developing sympathetic neurons," Development, 128:3963-3974 (2001)	
	175	ENZMANN et al., "Immunological problems of transplantation into the subretinal space," Acta Anat., 162:178-183 (1998)	
	176	FAIRLIE et al., "The propeptide of the transforming growth factor-β superfamily member, macrophage inhibitory cytokine-1 (MIC-1), is a multifunctional domain that can facilitate protein folding and secretion," J. of Biol. Chem., 276(20):16911-16918 (2001)	
	177	FINSEN et al., "Somatostatin and neuropeptide Y in organotypic slice cultures of the rat hippocampus: an immunocytochemical and in situ hybridization study," Neurosci., 47:105-113 (1992)	
	178	FJORD-LARSEN, et al. "Efficient in vivo protection of nigral dopaminergic neurons by lentiviral gene transfer of a modified Neurturin construct," Experimental Neurology, 195:49-60 (2005)	
	179	FLANDERS et al., "TGFβ," Laboratory of Cell Regulation and Carcinogenesis, National Cancer Institute, 719-746 (undated)	
	180	FRANCIS et al., "Pegylation of Cytokines and other therapeutic proteins and peptides: the importance of biological optimization of coupling techniques," Int'l. Journal of Hematology, Elsevier Science Publishers, NL., 68(1):1-18 (1998)	
	181	FRANKEL et al., "High-Level Expression and Purification of the Recombinant Diphtheria Fusion Toxin DTGM for PHASE I Clinical Trials," Expr Purif. 16(1):190-201, (June 1999)	
	182	FREYNHAGEN et al., "The evaluation of neuropathic components in law back pain," Current Pain & Headache Reports 13:185-190 (2009)	
	183	FRIEDMANN, "Principles for human gene therapy studies," Science, 287:2163-2164 (2000)	
	184	GARDELL et al., "Multiple actions of systemic artemin in experimental neuropathy," Nat Med., 9(11):1383-89 (2003)	
	185	GenBank Accession Number AA844072, 2 pages (1998)	
	186	GenBank Accession Number AC005037, Waterston, 54 pages (1998)	
	187	GenBank Accession Number AC005038, Sulston et al., 96 pages (2001)	
	188	GenBank Accession Number AC005051, Waterston, 38 pages (1998)	
	189	GenBank Accession Number AF040962, Milbrandt et al., 2 pages (1998)	

	Examiner Signature	Date Considered
	/Daniel Gamett/ (03/13/2011)	
1	EXAMINER: Initials citation considered. Draw line through citation if no	t in conformance and not considered. Include conv of this form with

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No. 13751-0035US1	Application No. 10/553,710
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(Use several sheets if necessary) (37 CFR §1.98(b))		Filing Date February 27, 2007	Group Art Unit 1647

Other Documents (include Author, Title, Date, and Place of Publication)			
Examiner	Desig.	_	
Initial	ID	Document	
	190	Genbank Accession Number AF120274, Rosenblad et al., 3 pages (1999)	
	101	GILCHUK, "Assessment of renaturation methods for industrial producing recombinant proteins in	
	191	biologically active form from E.coli inclusion bodies," Biopolymers and Cell, 20(3):182-192 (2004)	
	192	GRIFFIN et al., "Assessment of cutaneous innervation by skin biopsies," Current Opinion in	
	192	Neurology, 14:655-659 (2001)	
	193	GUERRA et al., "PEGylation prevents the N-terminal degradation of megakaryocyte growth and	
	193	development factor," Pharm. Res., 15(12):1822-1827 (1998)	
	194	GUSTAFSSON, "New insights in oestrogen receptor (ER) research - the ERbeta," Eur. J. Cancer,	
	171	36 Suppl. 4:S16 (2000)	
		HALL et al., "Eukaryotic and Prokaryotic Signal Peptides Direct Secretion of a Bacterial	
	195	Endoglucanase by Mammalian Cells," Journal of Biological Chemistry, 265(32):19996-19999	
		(1990)	
	196	HALLBÖÖK et al., "Expression of Neurotrophins and Trk Receptors in the Avian Retina," J. Compar. Neurol., 364:664-676 (1996)	
		HAMILTON et al., "Heparin coinfusion during convection-enhanced delivery (CED) increases the	
	197		
	177	enhances the pharmacological activity of neurturin," Experimental Neurology, 168:155-161 (2001)	
		HOANE et al. "Mammalian-Cell-Produced Neurturin (NTN) Is More Potent Than Purified	
	198	Escherichia coli-Produced NTN," Exp. Neurol., 162:189-193 (2000)	
	100	ISRAEL et al., "Acetylcholine Release and the Cholinergic Genomic Locus," Molecular Neurobio.,	
	199	16(1):1-20 (1998)	
	200	JOHANSEN et al., "Biosynthesis of peptide precursors and protease inhibitors using new	
	200	consititutive and inducible eukaryotic expression vectors," FEBS Lett., 267:289-294 (1990)	
	201	KIM et al., "An experimental model for peripheral neuropathy produced by segmental spinal nerve	
	201	ligation in the rat," Pain, 50:355-363 (1992)	
	202	KIRSCH et al. "Expression of ciliary neurotrophic factor receptor mRNA and protein in the early	
	202	postnatal and adult rat nervous system," Neurosci. Lett., 180:163-166 (1994)	
	203	KOTZBAUER et al., "Neurturin, a relative of glial-cell-line-derived neurotrophic factor," Nature,	
		384:467-70 (1996)	
	204	KRON et al., "Coronary revascularization rather than cardiac transplantation for chronic ischemic	
		cardiomyopathy," Ann. Surg., 210:348-352 (1989)  LAPCHAK et al., "Pharmacological characterization of glial cell line-derived neurotrophic factor	
	205	(GDNF): implications for GDNF as a therapeutic molecule for treating neurodegenerative diseases,"	
	203	Cell Tissue Res., 286:179-189 (1996)	
		LAPCHAK, "Therapeutic potential for glial cell line-derived neurotropic factor (GDNF) based upon	
	206	pharmacological activities in the CNS," Rev. Neurosci., 7:165-176 (1977)	
	205	LAVAIL et al., "Protection of mouse photoreceptors by survival factors in retinal degenerations,"	
	207	Invest. Ophthalmol. Vis. Sci., 39(3):592-602 (1998)	
	200	LEE et al., "Proliferin Secreted by Cultured Cells Binds to Mannose 6-Phosphate", J. Biol. Chem.,	
	208	263(7):3521-3527 (1988)	
		LEE et al., "Prolonged circulating lives of single-chain Fv proteins conjugated with polyethylene	
	209	glycol: a comparison of conjugation chemistries and compounds," Bioconjug. Chem., 10:973-981	
		(1999)	
Evaminar Ciar		Data Considered	

Examiner Signature	Date Considered		
/Daniel Gamett/ (03/13/2011)			
EXAMINER: Initials citation considered. Draw line through citation if no	ot in conformance and not considered. Include copy of this form with		
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Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No. 13751-0035US1	Application No. 10/553,710
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(Use several sheets if necessary) (37 CFR §1.98(b))		Filing Date February 27, 2007	Group Art Unit 1647

Other Documents (include Author, Title, Date, and Place of Publication)				
Examiner Initial	Desig. ID	Document		
	210	LI et al., "beta-Endorphin omission analogs: dissociation of immunoreactivity from other biological activities," PNAS, 77(6):3211-14 (1980)		
	211	LI et al., "Expression, purification, and characterization of recombinant human neurturin secreted from the yeast Pichia pastoris," Protein Expression and Purification, 30(1):11-17 (2003)		
	212	LIN et al., "GDNF: A glial cell line-derived neurotrophic factor for midbrain dopaminergic neurons," Science, 260:1130-1132 (1993)		
	213	LITTLE et al., "Transplantation of human fetal retinal pigment epithelium rescues photoreceptor cells from degeneration in the royal college of surgeons rat retina," Invest. Ophthalmol. Vis. Sci., 37(1):204-211 (1996)		
	214	LORENZ et al., "Heteromultimeric CLC chloride channels with novel properties," Proc. Natl. Acad Sci USA, 93:13362-13366 (1996)		
	215	MACHELSKA et al., "Breaking the pain barrier," Nature Medicine 9(11):1353-1354 (2003)		
	216	MAEDA et al., "Efficient Production of Active TNF I By albumin Signal Peptide," Biochemistry and Molecular Biology International, Academic Press, London, GB, 42(4):825-832 (1997)		
	217	MASSAGUE et al., "The TGF-J family and its composite receptor," Trends Cell Biol., 4:172-178 (1994)		
	218	MASON, "The RET receptor tyrosine kinase: activation, signalling and significance in neural development and disease," Pharm. Acta. Helv., 74:261-4 (2000)		
	219	MASURE et al., "Enovin, a novel member of the GDNF family of neurotrophic growth factors with growth promoting and neuroprotective effects on neuronal cells," a poster presentation from Jansser Research Foundation, "Gordon Conference" held on June 6-11, 1999		
	220	MASURE, et al., "Enovin, a member of the glial cell-line-derived neurotrophic factor (GDNF) family with growth promoting activity on neuronal cells," Eur J. Biochem., 266:892-902 (1999)		
	221	MASURE et al., "Mammalian GFRalpha -4, a divergent member of the GFRalpha family of coreceptors for glial cell line-derived neurotrophic factor family ligands, is a receptor for the neurotrophic factor persephin," J. Biol. Chem., 275:39427-34 (2000)		
	222	MATSUSHITA et al., "Cloning and structural organization of the gene encoding the mouse glial ce line-derived neurotrophic factor, GDNF," Gene, 203:149-157 (1997)		
	223	MCDONALD et al., "A structural superfamily of growth factors containing a cystine knot motif.," Cell, 73:421-424 (1993)		
	224	MERLO et al. "The Mouse <i>int-2</i> Gene Exhibits Basic Fribroblast Growth Facctor Activity in a Basi Fibroblast Growth Factor-responsive Cell Line," Cell Growth & Differentiation, 1:463-472 (1990)		
	225	MILBRANDT et al., "Persephin, a novel neurotrophic factor related to GDNF and Neurturin," Neuron, 20:245-253 (1998)		
	226	MOGYOROS et al., "Strength-duration properties of sensory and motor axons in amyotrophic lateral sclerosis," Brain 121:851-859 (1998)		
	227	MOORE et al., "Renal and neuronal abnormalities in mice lacking GDNF," Nature, 382:76-79 (1996)		
	228	MOUSTAKAS et al., "Smad regulation in TGF-β signal transduction," J. of Cell Science, 114:4359 4369 (2001)		
	229	NGO et al., "The Protein Folding Problem and Tertiary Structure Prediction," Birkhäuser, 492-495 (1994)		

Examiner Signature /Daniel Gamett/ (03/13/2011)	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if no	nt in conformance and not considered. Include conv of this form with

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No. 13751-0035US1	Application No. 10/553,710
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Other Documents (include Author, Title, Date, and Place of Publication)			
Examiner	Desig.		
Initial	ID	Document	
	230	NIELSEN et al., "Identification of prokaryotic and eukaryotic signal peptides and prediction of their	
	230	cleavage sites," Protein Engineering, 10(1):1-6 (1997)	
		NIELSEN et al., "Prediction of signal peptides and signal anchors by a hidden Markov model,"	
	231	Proceedings of the 6th International Conference on Intelligent systems for Molecular Biology, 122-	
		130 (1998)	
	232	NISHINO et al., "GFR alpha3, a component of the artemin receptor, is required for migration and	
	232	survival of the superior cervical ganglion," Neuron, 23(4):725-736 (1999)	
	233	NORTON et al., "Bacterial beta-Galactosidase as a Marker of Rous Sarcoma Virus Gene Expression	
	233	and Replication," Mol. Cell. Biol., 5:281-290 (1985)	
	234	OROZCO et al., "Nociceptive Neurons Express GFRa3," Society for Neuroscience, Abstracts 26 (1-	
		2): Abstract No. 412.7 (2000)	
	235	OROZCO et al., "GFRalpha3 is expressed predominantly in nociceptive sensory neurons," Eur. J.	
		Neurosci., 13(11):2177-82 (2001)	
	236	PALMITER, "Heterologous introns can enhance expression of transgenes in mice," PNAS, 88:478-	
		482 (1991)	
	237	PARK et al., "Coordinated interaction of the vascular and nervous systems: from molecule- to cell-	
		based approaches," Biochem. Biophys. Res. Commun., 311:247-253 (311) (2003)	
	238	PARK et al., "Tarnscriptional regulation of artemin is related to neurite outgrowth and actin	
		polymerization in mature DRG neurons," Neuroscience Letters 404:61-66 (2006)	
	239	PAWSON et al., "Assembly of cell regulatory systems through protein interaction domains,"	
		Science, 300:445-452 (2003)	
	240	PIR_80 Accession No. 14968	
	241	PONS et al., "Massive cortical reorganization after sensory deafferentation in adult macaques,"	
	241	Scient. 252(5014):1857-1860 (1991)	
		RAKOWICZ et al., "Glial Cell Line-Derived Neurotrophic Factor Promotes the Survival of Early	
	242	Postnatal Spinal Motor Neurons in the Lateral and Medial Motor Columns in Slice Culture," The	
		Journal of Neuroscience, 22(10):3953-3962 (2002)	
	243	RAMACHANDRAN et al., "Perceptual correlates of massive cortical reorganization," Science	
	273	258(5085):1159-1160 (1992)	
	244	RAMACHANDRAN, "Behavioral and MEG correlates of neural plasticity in the adult human	
	277	brain," Proceedings of the National Academy of Sciences 90:10413-10420 (1993)	
	245	RAMER et al., "Functional regeneration of sensory axons into the adult spinal cord," Nature	
	213	403:312-316 (January 2000)	
	246	RATTENHOLL et al., "Pro-sequence assisted folding and disulfide bond formation of human nerve	
	210	growth factor," J. Mol. Biol., 305:523-533 (2001)	
	247	RATTENHOLL et al., "The pro-sequence facilitates folding of human nerve growth factor from	
		Escherichia coli inclusion bodies," Eur. J. Biochem., 268:3296-3303 (2001)	
	248	REDDY, "Controlled-release peylation, liposomal formulations: new mechanisms in the delivery of	
		injectable drugs," Annals of Pharmacotherapy, 34(7/8):915-923 (2000)	
		REINSHAGEN et al., "Commercial recombinant human β-Nerve Growth factor and adult rat dorsal	
	249	root ganglia contain an identical molecular species of nerve growth factor prohormone," J. of	
		Neurochemistry, 74:2127-2133 (2000)	

	Examiner Signature	Date Considered
	/Daniel Gamett/ (03/13/2011)	
1	EXAMINER: Initials citation considered. Draw line through citation if no	t in conformance and not considered. Include conv of this form with

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Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Desig.		
Initial	ID	Document
	250	Immun. 66:1347-352 (Jan. 1998)
	251	RIGANTI et al., "Nitroarginine methyl ester and canavanine lower intracellular reduced glutathione," Free Radic. Biol. Med., 35(10):1210-6 (2003)
	252	ROBERTSON et al., "The GDNF-RET signaling in partnership," Trends Genet., 13:1-3 (1997)
	253	ROSENBERG et al., "Gene therapist, heal thyself," Science, 287:1751 (2000)
	254	ROSENBERG et al., "Vectors for selective expression of cloned DNAs by T7 RNA polymerase," Gene, 56:125-135 (1987)
	255	ROSENBLAD et al., "In vivo protection of nigral dopamine neurons by lentiviral gene transfer of the novel GDNF-family member neublastin/artemin," Molecular and Cellular Neuroscience, 15(2):199-214 (2000)
	256	ROSENBLAD et al., "In vivo protection of nigral dopamine neurons by lentiviral gene transfer of the novel GDNF-family member neublastin/artemin," Mol. Cell Neurosci., 18(3):332-333 (2001)
	257	ROSSOMANDO et al., "In vitro and in vivo characterization of neublastin, a nociceptive neuronal trophic factor," Abstracts of the Annual Meeting of the Society for Neuroscience, Society for Neuroscience, Washington, DC, U.S., 27(1):361 (2001) (XP001121851, ISSN: 0190-5295)
258		SAARMA et al., "Other neurotrophic factors: glial cell line-derived neurotrophic factor (GDNF)," Microsc. Res. Tech., 45(4-5):292-302 (1999)
	259	SAARMA, "GDNF: A stranger in the TGF-beta superfamily?" European Journal of Biochemistry, 267(24):6968-6971 (2000)
SADICK et al., "Analysis of heregulin-induced ErbB2 phospho		
	261	SAH et al., "Prevention and Reversal of Experimental Neuropathic Pain by Systemic Neublastin," Society for Neuroscience Abstracts, 27(1):361 (2001)
	262	SAH et al., "Neurotrophic factors as novel therapeutics for neuropathic pain," Nature Reviews 2:460-472 (2003)
	263	SAH et al., "New approaches for the treatment of pain: the GDNF family of neurotrophic growth factors," Curr. Top Med. Chem., 5(6):577-83 (2005)
	264	SANICOLA et al., "Glial cell line-derived neurotrophic factor-dependent RET activation can be mediated by two different cell-surface accessory proteins," Proc Natl Acad Sci, USA, 94:6238-6243 (1997)
	265	SAUER et al., "Progressive degeneration of nigrostriatal dopamine neurons following intrastraiatal terminal lesions with 6-hydroxydopamine: a combined retrograde tracing and immunocytochemical study in the rat," Neuroscience, 59:401-415 (1994)
	266	Chimica Acta, 268(1-2):41-60 (1997)
	267	SILVIAN, L. et al., "Artemin crystal structure reveals insights into heparan sulfate binding," Biochemistry 45(22):6801-12 (June 2006)

Examiner Signature	/Daniel Gamett/ (03/13/2011)	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with		

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Other Documents (include Author, Title, Date, and Place of Publication)				
Examiner	Desig.			
Initial	ID	Document 1 (5 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 /		
	268	SKOLNICK et al. "From genes to protein structure and function: novel applications of		
		computational approaches in the genomic era," Trends in Biotech., 18(1):34-39 (2000)  SLOOT et al., "Detection of salicylate and its hydroxylated adducts 2.3- and 2.5-dihydroxybenzoic		
		acids as possible indices for in vivo hydroxyl radical formation in combination with catechol- and		
	269	indoleamines and their metabolites in cerebrospinal fluid and brain tissue," J. Neurosci. Meth.,		
		60:141-149 (1995)		
	270	SMITH et al. "The challenges of genome sequence annotation" or "The devil is in the details,"		
	270	Nature Biotechnology, 15:1222-1223 (1997)		
	271	SNIDER et al., "Tackling pain at the source: new ideas about nociceptors," Neuron 20:629-632		
	2/1	(April 1998)		
	272	STOPPINI et al., "A simple method for organotypic cultures of nervous tissue," J. Neurosci.		
		Methods, 37:173-182 (1991)		
	273	THOMPSON et al., "The ClustalX windows interface: flexible strategies for multiple sequence		
		alignment aided by quality analysis tools," Nucl. Acids Res., 25:4876-4882 (1997)  TRUPP et al., "Peripheral expression and biological ctivities of GDNF, a new neurotrophic factor		
	274	for avian and mammalian peripheral neurons," The Journal of Cell Biology 130(1):137-148 (July		
	274	1995)		
	275	TSENG et al., "Neurturin protects dopaminergic neurons following medial forebrain bundle		
	2/3 axotomy," Mol. Neurosci, 9:1817-1822 (1998)			
	276	UNSICKER, "GDNF: a cytokine at the interface of TGF-betas and neurotrophins," Cell Tissue Res.,		
	270	286:175-178 (1996)		
	277	VALLEJO et al., "Optimized procedure for renaturation of recombinant human bone morphogenetic		
		VARMUS, "Gene therapy: Not ready for prime time," Nature Medicine, 2(1):7-8 (1996)  VERMA et al., "Gene therapy-promises, problems and prospects," Nature, 389:239-242 (1997)  VERMA, "Gene therapy: beyond 2000," Mol. Ther., 6:493 (2000)  VERONESE et al., "Introduction and Overview of Peptide and Protein Pegylation," Advanced Drug		
	278			
	279			
	280			
	281			
		Delivery Reviews, 54(4):453-456 (2002)  VICKERS, "A vaccine against Alzheimer's disease: developments to date." Drugs Aging 19(7):487-		
94 (2002)  VON SCHWEDI ER et al. "Vif is crucial for human immunodeficiency virus type 1 pro				
		VON SCHWEDLER et al., "Vif is crucial for human immunodeficiency virus type 1 proviral DNA		
	283	synthesis in infected cells," J. Virol., 67:4945-4955 (1993)		
	284	VUKICEVIC et al., "Induction of nephrogenic mesenchyme by osteogenic protein 1 (bone		
	201	WANG et al., "Single-chain Fv with manifold N-glycans as bifunctional scaffolds for immunomolecules," Protein Eng., 11(12):1277-83 (1998)  WANG et al., "Animal and cellular models of chronic pain," Adv. Drug Delivery Rev., 55:949-96 (2003)  WANG et al. "Inhibitory effect of endostatin expressed by human liver carcinoma SMMC7721 or		
	285			
	286			
	207			
	287			
	288	WANG et al., "Persistent Restoration of sensory function by immediate or delayed systemic artemin		
after dorsal root injury," Nature Neurosci. 11(4):488-496 (2008)				
Examiner Sign	nature	ol Compett / (02/12/2011)  Date Considered		
	/uani	el Gamett/ (03/13/2011)		
		n considered. Draw line through citation if not in conformance and not considered. Include copy of this form with		
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	Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner	Desig.		
Initial	D	Document	
	289	WATABE et al., "Spontaneously immortalized adult mouse Schwann cells secrete autocrine and paracrine growth-promoting activities," J. Neurosci. Res., 41:279-90 (1995)	
	290	WEFSTAEDT et al., "Neurotrophic factors of the GDNF family and their receptors are detectable in spiral ganglion cells of normal hearing as well as of deafened rats," Laryngorhinootologie, 85(11):802-8 (2006) (English abstract only, see page 807)	
	291	WELLS, "Additivity of Mutational Effects in Proteins," Biochemistry, 29:8509-8517 (1990)	
	292	WEST et al., "Estimation of the Number of Somatostatin Neurons in the Striatum: An In Situ Hybridization Study Using the Optical Fractionator Method," J. Comp. Neurol., 370:11-22 (1996)	
	293	WHITE et al., "Chemokines: integrators of pain and inflammation," Nat Rev. Drug discovery 4:834-844 (2005)	
	294	YAN, M. et al., "Two-amino acid molecular switch in an epithelial morphogen that regulates binding to two distinct receptors," Science 290:523-527 (2000)	
	295	ZUFFEREY et al., "Multiply attenuated lentiviral vector achieves efficient gene delivery in vivo," Nat. Biotechnol., 15:871-875 (1997)	

Examiner Signature /Dar	niel Gamett/ (03/13/2011)	Date Considered
EVAMINED: Initials citation considered. Draw line through citation if not in conformance and not considered. Include conv. of this form with		